

Date: Thursday, 11/09/2008 10:43:16 AM
 User: Julie Lecocq

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : GLARESHIELD
Job Number : 41984	
Estimate Number : 13288	
P.O. Number :	Part Number : D36901
This Issue : 11/09/2008 S.O. No. :	Drawing Number : D3690 REVB
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : THERMOFORMING	Drawing Revision : B
Previous Run : 41222	Material :
Written By :	Due Date : 30/09/2008 Qty: 4 Um: Each
Checked & Approved By : <u>JUL 08.9.11</u>	
Comment : Est Rev A New Issue 08/04/28 DL verified by:DD Est Rev:B 08-07-14 revB as per dwg DD verified by:ec	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	MLEXS093F600602	GE PLASTICS LEXAN SHEET



Comment: Qty.: 26.3110 sf(s)/Unit Total : 105.2440 sf(s)
 GE PLASTICS LEXAN SHEET
 batch: 106751

2.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
-----	----------------	------------------------------



Comment: HAND FINISHING THERMOFORMING

Set up machine frame and program as per Folio FTA 019

ok 08.09.29

3.0	HAND FINISH TH	HAND FINISHING THERMOFORMING
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Comment: HAND FINISHING THERMOFORMING

1) Cut Blanks to fit frame size 69.5" X 35.5"

ok 08.09.29

4.0	THERMOFORMING	THERMOFORMING MACHINE
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Comment: THERMOFORMING MACHINE

Thermoform as per Dwg. D3690-1and Folio FTA 019

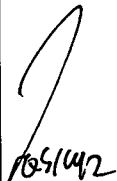
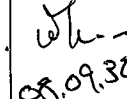

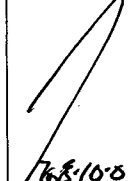
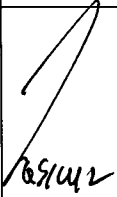
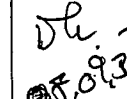
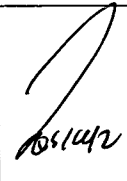
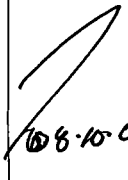
Dwg. Rev. B
 Folio Rev. B

ok 08.09.30

PTO. →

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3690-1 PAR #: N/A Fault Category: Prod/Kernofamby NCR: Yes No DQA: D Date: 08/10/10
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: D Date: 08/10/10

NCR: <u>41984</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08.09.30	4.	1-UNIT TOO COLD.		Scrap & replace. Raise temp 5°F.	 08.09.30	08/10/03		
08.10.03	4.	2 UNITS - PULLED OUT OF CLAMPS.		Scrap & replace. Raise temp 5°F MORE	 08.09.30	08/10/03		

NOTE: Date & initial all entries

Date: Thursday, 11/09/2008 10:43:16 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: GLARESHIELD

Job Number: 41984

Part Number: D36901

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Visually inspect for proper formation of each part

JK 08.09.30

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

08.10.01 (4)

7.0

HAND FINISH TH

HAND FINISHING THERMOFORMING



Comment: HAND FINISHING THERMOFORMING

1) Trim to Finished Dimensions as per dwg D3690 using DT9036 / DT9043 template

BL/DL 08.10.01 (4)

8.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

Check dimensions to ensure conformity to drawing tolerances.

08.10.09

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08.10.09

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

PPD 41937

AS 08/10/09 (4)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/10/09 (4)

Job Completion



u 08.10.09

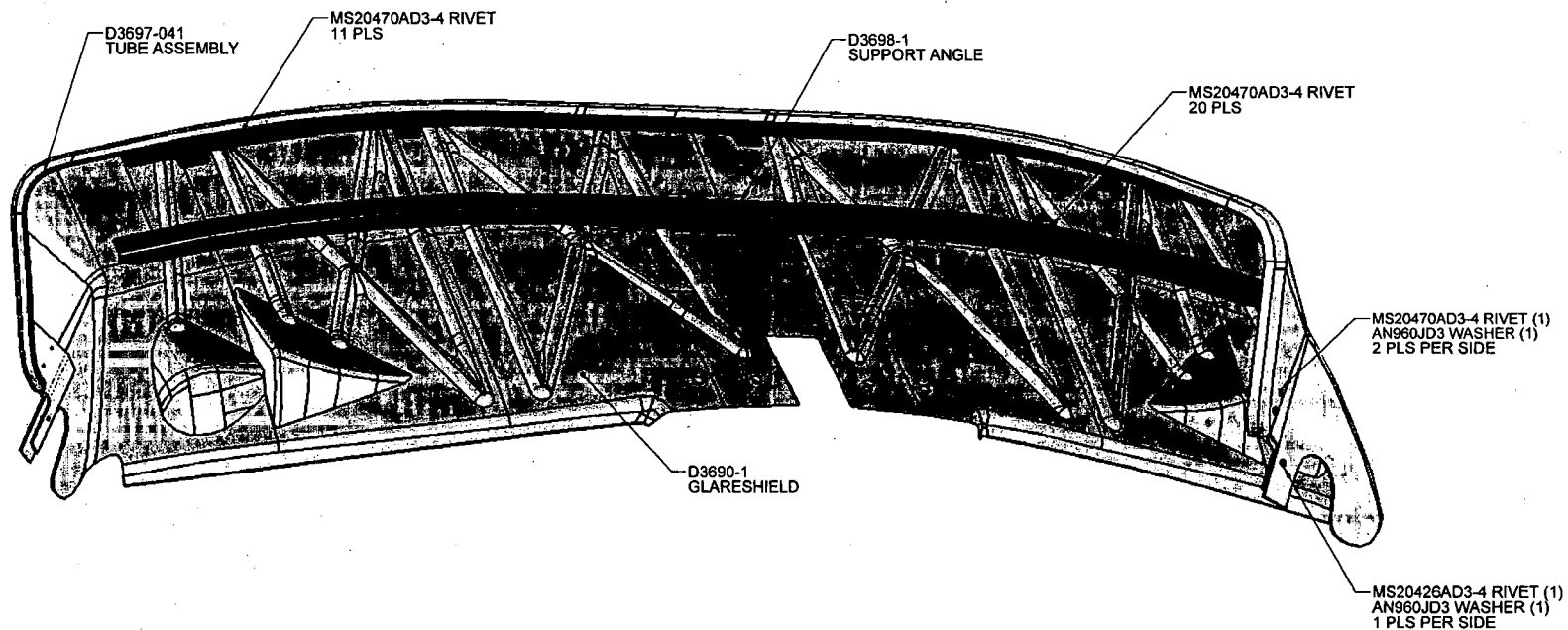
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



PART LIST

QTY -041	PART NUMBER	DESCRIPTION
X	D3690-041	GLARESHIELD ASSEMBLY
1	D3690-1	GLARESHIELD
1	D3697-041	TUBE ASSEMBLY
1	D3698-1	SUPPORT ANGLE
6	AN960JD3	WASHER (OR NAS1149DN332J)
2	MS20426AD3-4	RIVET
35	MS20470AD3-4	RIVET

D3690-041 GLARESHIELD ASSEMBLY

RELEASED
08-07-05

B	ADD FINISH COAT & 1.0 TYP. SHEET 2 ZONES A,B & C,5; ADD MIN THICKNESS. SHEET 3 ZONE A,B	RF	08.06.24
A	NEW ISSUE	RF	08.05.26
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3690	SHEET 1 OF 3
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	GLARESHIELD ASSEMBLY	NTS
DATE	08.06.24	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

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WORK ORDER
NO. 21982

TRANSFER DRILL $\phi 0.098$
(#40 DRILL) FROM
D3698-1 TO D3690-1
INSTALL
MS20470AD3-4 RIVET (20 REF)
RIVET HEAD ON GLARESHIELD
OUTSIDE SURFACE

D3690-1
GLARESHIELD
REF

TRANSFER DRILL $\phi 0.098$
(#40 DRILL) FROM
D3697-041 TO D3690-1
INSTALL
MS20426AD3-4 RIVET (1 REF)
AN960JD3 WASHER (1, ON GLARESHIELD
OUTSIDE SURFACE)
1 PER SIDE

TRANSFER DRILL $\phi 0.098$
(#40 DRILL) FROM
D3697-041 TO D3690-1
INSTALL
MS20470AD3-4 RIVET (1 REF)
AN960JD3 WASHER (1, ON GLARESHIELD
OUTSIDE SURFACE)
2 PER SIDE

SECTION A-A

EQUAL DIMENSION
AT BOTH ENDS

TRANSFER DRILL $\phi 0.098$
(#40 DRILL) FROM
D3697-041 TO D3690-1
INSTALL
MS20470AD3-4 RIVET (11 REF)
RIVET HEAD ON GLARESHIELD
OUTSIDE SURFACE

TRANSFER DRILL $\phi 0.144$
(#27 DRILL) AT THIS LOCATION
FROM D3697-041 TO D3690-1
(NO HARDWARE INSTALLED)

D3698-1
SUPPORT ANGLE
REF

D3690-041 GLARESHIELD ASSEMBLY

RELEASED
68-07-05 147

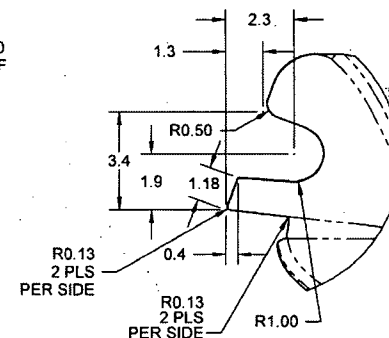
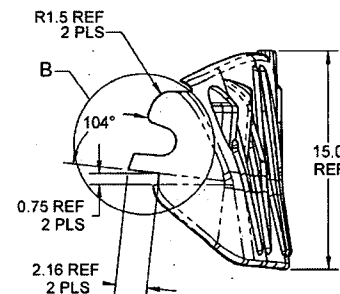
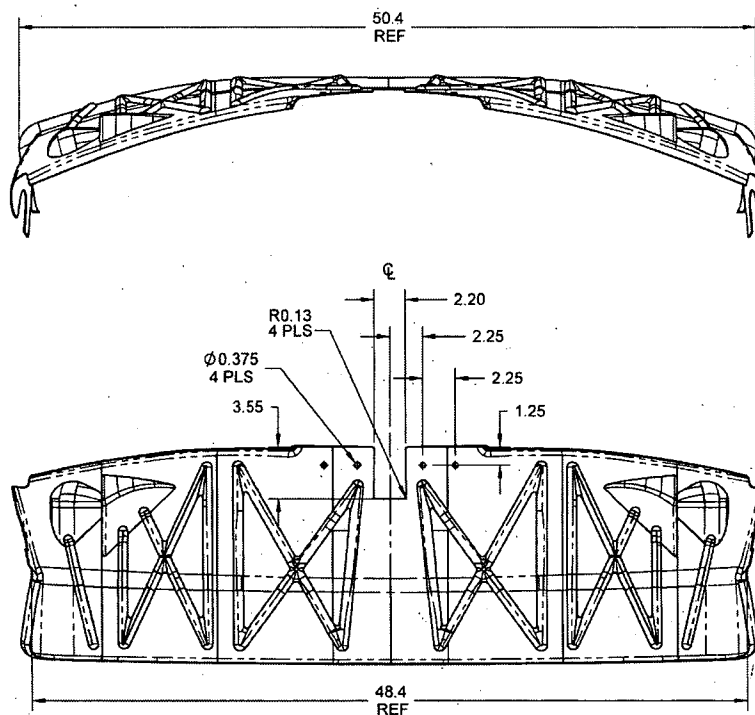
NOTES:

- 1) CENTER D3697-041 AND D3698-1 ON TO D3690-1
- 2) FINISH: PAINT D3690-041 ASSY FLAT BLACK USING BASF GLASURIT 22 LINE CODE SFA39.50 PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) IDENTIFICATION: ETCH WITH DART P/N D3690-041 & B/N ON INSIDE OF PART
- 5) WEIGHT: 2.98 lbs
- 6) MASK HATCHED AREAS (6 PLS) ON INSIDE OF THE PART PRIOR TO PAINTING

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	CP	DRAWING NO.	REV. B
MFG. APPR.	FE	D3690	SHEET 2 OF 3
APPROVED	MP	TITLE	SCALE
DE APPR.	TH	GLARESHIELD ASSEMBLY	NTS
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WORK ORDER
479874



DETAIL B
2 X SCALE
ALL REF DIMENSION





RELEASED
05-09-10

D3690-1 GLARESHIELD

NOTES:

- 1) MATERIAL: F6006 SUEDE/POLISHED 701 BLACK FLAT LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-02)
- 2) TOOLING: THERMOFORM PER MOLD DT9010 PER QSI 022
TRIM PER MOLD SCRIBE LINES EXCEPT WHERE NOTED
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: NONE
- 8) WEIGHT: 25 lbs
- 9) MINIMUM THICKNESS AFTER FORMING IS 0.040



DESIGN	RF	DART AEROSPACE LTD	
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CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3690	SHEET 3 OF 3
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WORK ORDER
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DART AEROSPACE LTD		Work Order: 71984
Description: Glareshield		Part Number: D3690-1
Inspection Dwg: D3690	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Shape Definition	✓			
Free of visual flaws (bumps, cracks, voids, etc.)	✓			

Measured by: *Wh*

Date: 08.10.01

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.20	+/-0.030	2.208	✓			
3.55	+/-0.030	3.568	✓			
0.040	Min	0.045	✓			

Measured by: *Wh*

Date: 08.10.01

Audited by: *[Signature]*

Date: 08.10.01

Prototype Approval: N/A

Date: N/A

Rev	Date	Change	Revised by	Approved
A	08.09.12	New Issue	KJ/DL <i>[Signature]</i>	<i>[Signature]</i>